

DOCUMENTED BRIEFING

RAND

The Global War on Terrorism

*An Early Look at Implications
for the Army*

Bruce Nardulli

Arroyo Center

DISTRIBUTION STATEMENT A
Approved for Public Release
Distribution Unlimited

BEST AVAILABLE COPY

20041208 141

DOCUMENTED BRIEFING

RAND

The Global War on Terrorism

*An Early Look at Implications
for the Army*

Bruce Nardulli

*Prepared for the
United States Army*

Arroyo Center

DB-416-A

The research described in this report was sponsored by the United States Army under Contract No. DASW01-01-C-0003.

ISBN: 0-8330-3435-9

The RAND documented briefing series is a mechanism for timely, easy-to-read reporting of research that has been briefed to the client and possibly to other audiences. Although documented briefings have been formally reviewed, they are not expected to be comprehensive or definitive. In many cases, they represent interim work.

RAND is a nonprofit institution that helps improve policy and decisionmaking through research and analysis. RAND® is a registered trademark. RAND's publications do not necessarily reflect the opinions or policies of its research sponsors.

© Copyright 2003 RAND

All rights reserved. No part of this book may be reproduced in any form by any electronic or mechanical means (including photocopying, recording, or information storage and retrieval) without permission in writing from RAND.

Published 2003 by RAND

1700 Main Street, P.O. Box 2138, Santa Monica, CA 90407-2138

1200 South Hayes Street, Arlington, VA 22202-5050

201 North Craig Street, Suite 202, Pittsburgh, PA 15213-1516

RAND URL: <http://www.rand.org/>

To order RAND documents or to obtain additional information, contact Distribution Services: Telephone: (310) 451-7002; Fax: (310) 451-6915; Email: order@rand.org

PREFACE

This documented briefing reflects the results of an Arroyo Center assessment of the implications of the war on terrorism for the United States Army. Much of the analysis was done shortly after operations in Afghanistan commenced in 2001. It is largely the product of a series of structured brainstorming sessions conducted by a group of RAND researchers at the time. Thus, it represents an initial look at possible implications and not the results of a long-term research effort.

However, in the intervening period some aspects of the work were further developed analytically. Also, where appropriate, reference to official U.S. policy documents bearing on the war on terrorism are now included. These documents did not exist when this work was originally done. Finally, in the context of the war on terrorism, the war with Iraq and subsequent occupation of the country are addressed where appropriate. This research was conducted in the Strategy, Doctrine, and Resources Program of RAND's Arroyo Center. The Arroyo Center is a federally funded research and development center sponsored by the United States Army.

For more information on RAND Arroyo Center, contact the Director of Operations (tel 310-393-0411, extension 6419; FAX 310-451-6952; e-mail Marcy_Agmon@rand.org), or visit the Arroyo Center's Web site at <http://www.rand.org/ard/>.

CONTENTS

Preface.....	iii
Summary	vii
Acknowledgments.....	xi
Glossary	xiii
Introduction.....	1
Potential Demands on the Army	7
Possible Army Responses	20
Expanding the Army's Counterterrorism Capabilities	44
Conclusions.....	52
Bibliography	53

SUMMARY

Within days of the attacks on the Pentagon and World Trade Center, the President made the war on terrorism the nation's top priority. It was immediately clear that this shift in priorities would have sweeping implications for the United States Army. Much less clear was their specific nature. A group of Arroyo Center researchers engaged in a series of structured intellectual explorations to determine what the implications of this new global war on terrorism would be for the Army. Those sessions were augmented by other relevant research in the Arroyo Center. This briefing presents the results of their efforts. Researchers addressed two primary questions: what demands would the war on terrorism place on the Army and what responses might it consider? They concluded the following:

- Repetitive deployments will continue—the Army needs to manage people accordingly.
- More than ever, the Army needs a range of force capabilities—special operations to conventional forces for major wars.
- Leveraging the transformation for the war on terrorism means more capable yet mobile light forces that can be easily tailored and special operations forces (SOF)-conventional hybrids.
- The Army needs to address the issue of scarce specialty skills that are in high demand to meet competing demands from the war on terrorism and homeland security.
- The Army has a large stake in any revised global basing arrangement, and the global war on terrorism adds another essential dimension to the basing issue.

More Deployments

The Army already has long-term commitments in such places as Bosnia, Kosovo, and the Sinai, and in all likelihood these will continue. It is in the U.S. interest to ensure that these areas remain stable. The Army is also currently carrying out combat operations against the remnants of al Qaeda and the Taliban in Afghanistan, employing about 6,000 soldiers in the process. Indications are that operations will continue there for some time. In addition, the war with Iraq and the subsequent occupation of the country represents a sizable commitment of ground forces there, likely for an extended duration.

Because it is the stated intention of national policymakers to carry on the war on terrorism across a wide front, the Army can expect to find itself conducting operations elsewhere as well. These will run the gamut from extended combat operations to training of foreign military forces to a host of counter-insurgency/foreign internal defense activities. Some of these may be comparatively short-lived. However, others will last for years. All will require additional deployment, further raising the tempos for Army forces.

The Army has dealt with increased deployment and operational tempo before. At the height of operations in the Balkans, it had about 30,000 troops committed to temporary assignments overseas. Techniques used to dampen the effects of the increased pace of deployments included cross utilization; use of reserve components, allies, and contractors; and modified personnel policies. These remain available. The Army could also cross-train units or modify the skill mix of the active forces to address some of the imbalances in demand. It could also attempt to increase its end strength.

Current peacetime personnel management goals, such as stability after deployments and before permanent change of station moves, limit the Army's flexibility. These policies could be further modified although at some cost to soldiers' quality of life and combat readiness for major contingencies. Unrelated to the war on terrorism, the Army is also exploring a unit rotation system for its currently stationed forces in Europe and Korea. Adopting this system would also affect deployments for the Global War on Terrorism, although pending further analysis it is unclear how significant those effects would be, either positive or negative. One concern is that moving stationed units to unit rotations could reduce the total number of readily available active force personnel for short-notice assignments related to the war on terrorism. This could reduce the Army's overall flexibility in the counterterrorism venue.

Range of Capabilities

The new policy for waging the war on terrorism envisions taking the war to the terrorists—wherever they may be. This offensive orientation, and the strong emphasis on relentless pressure in this regard, is markedly different from past counterterrorism efforts. Therefore we have defined this new policy as Offensive Counterterrorism (OCT) to distinguish it from more traditional doctrinal counterterrorism. This form of overseas OCT we believe will require new combinations of joint capability and responsiveness. For example, it may be necessary to launch a rapid attack against a large, well-defended terrorist installation on inhospitable terrain. Or the Army might have to attack simultaneously several sites spread over a large area. The national civilian leadership will want the ability to carry out a short-notice operation anywhere in the world with high confidence of success. Such operations may now have to

take place on a continuous basis to maintain the necessary level of pressure, another break with past activities in this regard. The ability to seize and neutralize weapons of mass destruction (WMD) under a variety of circumstances will be especially important. Terrorists have proven themselves resourceful, and we can expect them to adapt and make important targets difficult to attack, denying the United States low-risk options, such as bombing. These efforts may also be designed to heavily tax or exceed the capabilities of existing U.S. special operations capabilities. Thus, the Army must develop new combinations of combat power and responsiveness as part of a joint force undertaking.

Leveraging the Transformation

The Army is in the process of transforming itself, in part to address the long-standing trade-off between the time to deploy forces and the amount of combat capability delivered. Light forces get there fast but lack combat power; heavy forces are quite capable but take a considerable time to arrive. The war on terrorism is likely to require greater combat power for a given response speed than the Army has traditionally been able to provide. The Army's new Stryker Brigade Combat Team (SBCT) addresses part of the new demands of the war on terrorism, but as a full brigade it still lacks the responsiveness needed for many rapid strike and raid operations. Furthermore, an additional requirement exists at the low end of the combat spectrum for added special operations capability. This demand could be met simply by adding more special operations forces (SOF). It could also be met by increasing the cooperation between SOF and light regular forces. A third option would be to increase the special operations capabilities of light units, perhaps by adding limited skill sets, to reduce the burden on SOF units.

The higher-end capability could be met by tailoring units drawing on assets embedded in the SBCTs. For example, portions of its capability (e.g., infantry, protected mobility, and situational awareness) could be combined with other light or SOF elements to form a very capable unit but one that could deploy much faster than could a complete Stryker brigade.

High Demand for Scarce Skills

One of the problems the Army faces is soldiers with scarce specialty skills that are in high demand, such as special operations and military police. The counterterrorism mission will increase the demand on SOF across the board, but such specialties as psychological operations and civil affairs could come under particular pressure if stability operations become a regular feature of the war. Civil affairs teams will also be committed for extended time in Iraq as part of the postconflict stability activities there, as will military police. Homeland security will also impose its own set of demands, both on a routine and an as-needed basis.

Some of the techniques for dealing with increased deployments apply here as well. Cross-utilization, reserve component forces, substitution of allies and contractors for U.S. forces, cross training in related skills, and modifying the active component skill mix all provide ways to address the shortfall. Each option offers different benefits and entails different costs.

Global Support Basing

The need to deploy worldwide will exert stress on the Army's ability to sustain itself. Likely trouble spots do not align well with the Army's current basing structure. Therefore, support assets would have to figure into any deployment, increasing the number of troops and amount of materiel that would be required to deploy. Thus, the Army needs to rethink the nature and location of its overseas basing, working with the Defense Department to ensure that its needs are addressed. It could also alter or expand the locations of its prepositioned materiel, and it could adopt more Spartan operational concepts that demand less in the way of deployed support. The war with Iraq will likely lead to significant changes in the disposition of U.S. prepositioned forces in the Gulf region and the status of the U.S. ground presence there. The effect of these changes on the war on terrorism must be taken into account.

ACKNOWLEDGMENTS

The single name listed on the cover of this document by no means implies that it was the work of one person. This briefing was a true collaboration among many RAND colleagues, of which I was simply the team leader. From the initial structured brainstorming effort, to the innumerable dry runs, to the drafting of the final document, many RAND researchers made major and minor intellectual contributions to the work. But all were indispensable in producing the final product. However, it is neither possible to grant all equal credit as authors nor to discriminate among them. I gratefully acknowledge the contributions of all those listed below.

Lynn Davis, Rick Eden, Charles Goldman, John Gordon, Adam Grissom, John Halliday, Stephen Hosmer, David Kassing, Charles Kaylor, Robert Klein, Frances Lussier, Roger Molander, David Oaks, Eric Peltz, Walter Perry, Bruce Pirnie, Jerry Sollinger, Ron Sortor, John Wise, Laurinda Zeman.

The author would also like to thank Professor Andrew Loerch of George Mason University and J. Michael Polich of RAND for their detailed and thoughtful reviews of an earlier version of this document.

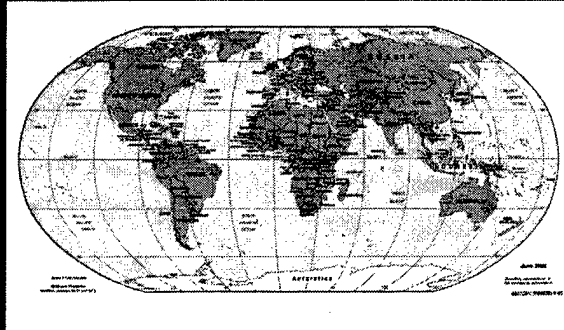
GLOSSARY

AASLT	Air assault
AC	Active component
ARNG	Army National Guard
ARSOF	Army Special Operations Forces
CA	Civil Affairs
CATF	Combined arms task force
CJTF	Combined Joint Task Force
COIN	Counterinsurgency
CONUS	Continental United States
CSS	Combat Service Support
CT	Counterterrorism
CTC	Combat Training Center
DA	Direct action
DRB	Division Ready Brigade
E-IMET	Expanded International Military Education and Training
ETS	End of Term of Service
EUCOM	European Command
FID	Foreign Internal Defense
FOL	Forward Operating Location
HLS	Homeland Security

KFOR	Kosovo Force
LD/HD	Low-Density/High-Demand
MCO	Major Combat Operation
MGS	Mobile Gun System
MI	Military Intelligence
MP	Military Police
MSCA	Military Support to Civilian Authorities
NEA	Northeast Asia
NEO	Noncombat Evacuation Operation
OCT	Offensive Counterterrorism
OF	Objective Force
PCS	Permanent Change of Station
PEO	Peace Enforcement Operations
PKO	Peacekeeping Operations
QDR	Quadrennial Defense Review
QRF	Quick-Reaction Force
RC	Reserve component
RSTA	Reconnaissance, surveillance, and target acquisition
SASO	Stability and Support Operations
SBCT	Stryker Brigade Combat Team
SFOR	Stabilization Force (Bosnia)
SOF	Special operations forces
SSC	Smaller-scale contingency

SWA Southwest Asia
TO&E Table of Organization and Equipment
UW Unconventional Warfare
WMD Weapons of Mass Destruction

The Global War on Terrorism: An Early Look at Implications for the U.S. Army



RAND
ARROYO CENTER
ARMY RESEARCH DIVISION

INTRODUCTION

Shortly after the attacks on September 11, the RAND Arroyo Center assembled a team to begin thinking through what a long-term Global War on Terrorism might look like and, based on this, what some of the principal implications of such a war might be for the U.S. Army. This documented briefing summarizes the results of that activity. It is based on a series of structured brainstorming sessions that began shortly after the terrorist attacks of September 11, 2001, supplemented by selective research and updates.

President Declared "War on Terrorism" the Nation's Top Priority

- Directed sustained offensive campaign against terrorism abroad
- Also directed maximum effort to defend U.S. homeland against terrorist attacks

Army must address challenges in face of large—and likely enduring—uncertainty over future demands of the war on terrorism

Almost immediately after the attacks, President Bush stated that the United States would wage a war against terrorism and make this war the nation's top security priority. While the initial focus was clearly the al Qaeda network in Afghanistan and their Taliban supporters, the President also made it clear that the objectives were much broader. These would encompass not only eliminating al Qaeda's global network but also other terrorist groups with global reach. State sponsors and supporters of terrorism were also put on notice. The President furthermore emphasized the long-term nature of this war.

Both President Bush and Secretary of Defense Donald H. Rumsfeld also stressed that a dominant feature of the war would be sustained offensive actions overseas against terrorist targets. The Secretary of Defense noted that victory in the war "requires steady pressure on the enemy, leaving him no time to rest and nowhere to hide" and "that the United States should give no strategic pauses that would allow the enemy breathing room or time to regroup." With a focus "on identifying and defusing threats before they reach our borders," the recently released National Strategy for Combating Terrorism "is a strategy of direct and continuous action against terrorist groups, the cumulative effect of which will initially disrupt, over time degrade, and ultimately destroy the terrorist organizations" (Rumsfeld, 2002a, p. 31; Office of the President, 2003, p. 2). Therefore, these types of offensive operations are believed to hold the best

prospect for eliminating terrorist threats, both to U.S. interests abroad (including those of American allies and friends) and against the U.S. homeland. Another element of this offensive strategy is selective preemptive action. This includes going after individual terrorists, their organizations, and physical sanctuaries. As part of this offensive campaign, weapons of mass destruction (WMD) are placed in a priority category all by themselves. While all instruments of U.S. power would be employed, military forces—directly to attack targets and indirectly to support other countries and groups in combating terrorist threats—would be a significant part of the effort.¹

The President also directed an extensive increase in homeland security. As post-September 11 events have already demonstrated, Army personnel will be called on to play a significant—and perhaps sizable—role in homeland security.

As codified in the September 2001 Quadrennial Defense Review (QDR), the defense of the United States is now the Department of Defense's primary mission. That mission consists first and foremost of preventing future terrorist attacks on the United States and, second, minimizing the consequences should they occur. For the Department of Defense, this involves the threefold responsibilities of waging an offensive counterterrorism campaign overseas, shaping the long-term security environment abroad to reduce the threat of global terrorism, and supporting homeland security. The Army in particular is facing new demands in all these domains.

¹Principal official public documents addressing the war on terrorism and U.S. strategy are the *Quadrennial Defense Review Report* (QDR), U.S. Department of Defense, September 30, 2001; *The National Security Strategy of the United States of America*, Office of the President, Washington, D.C., September 2002; *The National Strategy to Combat Weapons of Mass Destruction*, Office of the President, Washington, D.C., December 2002; and *The National Strategy For Combating Terrorism*, Office of the President, Washington, D.C., February 2003.

Uncertainty Will Endure as Dominant Planning Consideration

- The war will remain an unstable and evolving condition
 - Scope, scale, intensity, duration, and location all major unknowns
 - Wide range of potential adversaries and threats
 - Type and scale of U.S. military involvement unclear
 - Wide mix of military, other national/international instruments possible
 - Levels and types of coalition support uncertain, highly contingent
 - Campaign discontinuities will generate new and changing requirements—driven in part by future terrorist events
 - Passage of time might not clarify the war's parameters substantially

In the view of the study team, the future of this war will be characterized by enduring uncertainty across many of the dimensions of the conflict.

At the strategic level, the war will likely remain unstable, with unpredictable shifts in priorities and the instruments employed. The scope, scale, intensity, and duration are all major uncertainties. The specific groups or types of threats to be encompassed in this war are still evolving, as are the criteria for targeting them. To a significant degree, national policy will clarify these over time. This has already occurred with the stated emphasis on terrorist organizations with global reach, on breaking the transnational interconnections among various terrorist organizations in order to isolate them, and, as a top priority, preventing terrorist groups from gaining access to WMD-related weapons and technologies (Office of the President, 2003). Yet external events will heavily influence many of these parameters, including sharp changes in direction due to future terrorist attacks, especially any future catastrophic attacks against the U.S. homeland. Mass casualty terrorist attacks on allied or friendly countries could also force quick adjustments. Likewise, rapidly emerging evidence of state (or multistate) involvement in any such actions, or even in their preparation, could signal a dramatic shift in priorities, or at least the speed with which certain state-level threats must be countered. Any potential for the use of WMD would accelerate

such changes. Consequently, the war on terrorism could entail large-scale military operations against opposing national military forces.

What impact the war on Iraq will have on the war on terrorism remains unclear. With regard to terrorist activities, alternatives range widely, from a significant decline in al Qaeda and other Islamic-based terrorist groups with the replacement of the Iraqi regime, to a major escalation in targeting of U.S. forces and interests throughout the region and around the world, including new linkages among groups hostile to the United States and its policies. Another uncertainty flowing from the war with Iraq is its impact on the long-term cooperation in the fight against terrorism the United States receives from other nations. For many states in the region, much will depend on the political conditions that emerge in Iraq, while in other cases the war and its aftermath may have little or no effect on cooperation. Again, the range of possibilities at this major juncture is extremely wide. On the other hand, the war could quickly revert to a relatively low-level, steady-state conflict in which the United States does not suffer any further major attacks and the offensive counterterrorism campaign consists primarily of an extended twilight war of slow attrition, relying heavily on nonmilitary intelligence and covert action, law enforcement, legal maneuvers, diplomatic cooperation, and economic strangulation of groups. The military dimension of the war on terrorism in such a world could—at least in theory—be relatively minor.

Many worlds in between are also possible. The point is that the types and scale of U.S. military involvement in the war remain in flux and to some significant degree will be a function of what the terrorists do and how U.S. policy responds to those actions. The wide range of potential terrorist adversaries and their agendas injects a level of planning uncertainty well above that of even unpredictable events of the past decade. Under these circumstances a “capabilities-based” paradigm is certainly preferable to a “threat-based” one, but wide-ranging uncertainties still present a very demanding challenge in arriving at the optimal type and level of capabilities required for the war on terrorism. Complex planning and resourcing issues lay ahead, requiring even more different and dynamic assessment and planning methods.

Other issues contributing to the uncertainty include the following:

- The level of cooperation and direct military assistance provided by various coalitions and partners in many respects depends on specific circumstances, and is, therefore, highly contingent and unknowable in advance. As noted above, the war with Iraq has introduced yet another major dynamic into this aspect of the war on terrorism. Consequently, U.S. military planners will face even greater challenges than they have in the past in estimating coalition support and therefore overall U.S. requirements for the war on terrorism.

- Dramatic and extremely damaging events, such as the collapse of a state possessing nuclear weapons or sensitive facilities, could produce major discontinuities in the security environment. Such events could radically alter the direction of the war.
- The passage of time may not clarify the dimensions of the war, at least not in the more traditional sense of specified adversaries, geographic scope, and identifiable "end-states."
- Last, a major related issue is the future of existing military commitments and requirements outside of the war on terrorism. Will defense planning guidance and QDR requirements for swift defeat of two aggressors in overlapping major conflicts, including one offensive action to replace a regime, change in light of emerging demands of the war on terrorism? More directly, how will removal of Iraq as a hostile power in the Persian Gulf affect force sizing for major combat operations in the future, and how will these revised requirements influence forces available for the war on terrorism?
- The challenge for all of the services, but perhaps most so for the U.S. Army, is in undertaking the expanding missions of the war on terrorism in addition to the established requirements to deter, defend, and defeat various adversaries in major conflicts as well as continue to conduct smaller-scale contingency (SSC) operations. In addition, as the Army provides forces for stability operations in Iraq as part of the occupation and reconstitution of that country, it will face new challenges in managing the stationing, deployment, and operational tempos of its forces around the globe.

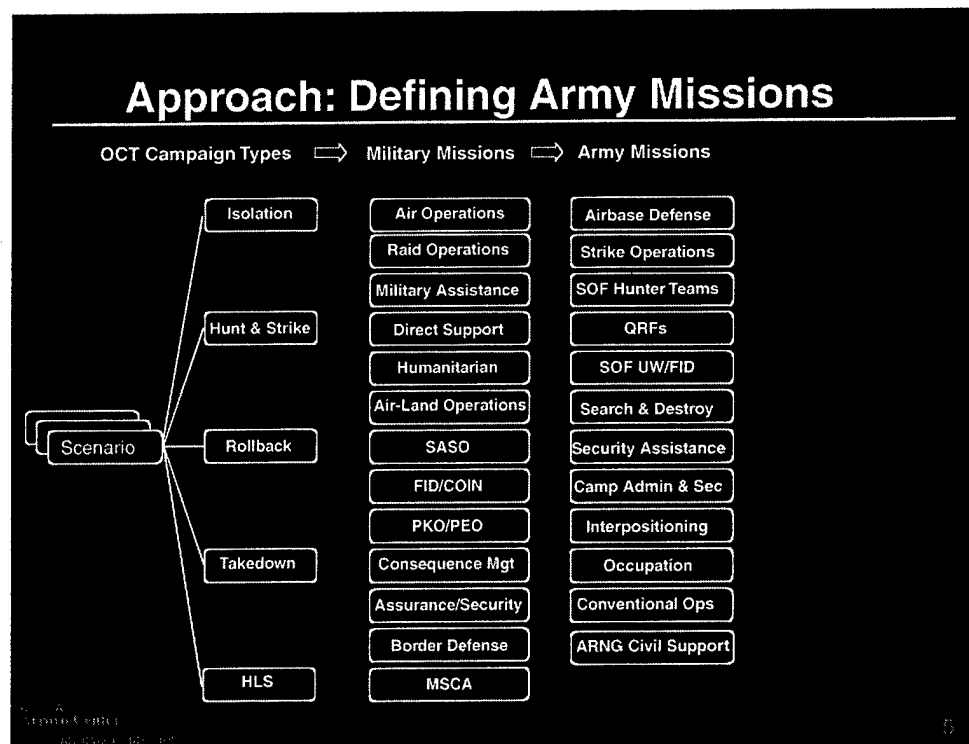
 *What Demands Loom for the Army?*

*What Responses Should the Army
Consider?*

RAND
Arroyo Center
ARMY RESEARCH DIVISION

POTENTIAL DEMANDS ON THE ARMY

We address two major questions: what types of demands loom for the Army, and what responses should the Army consider?



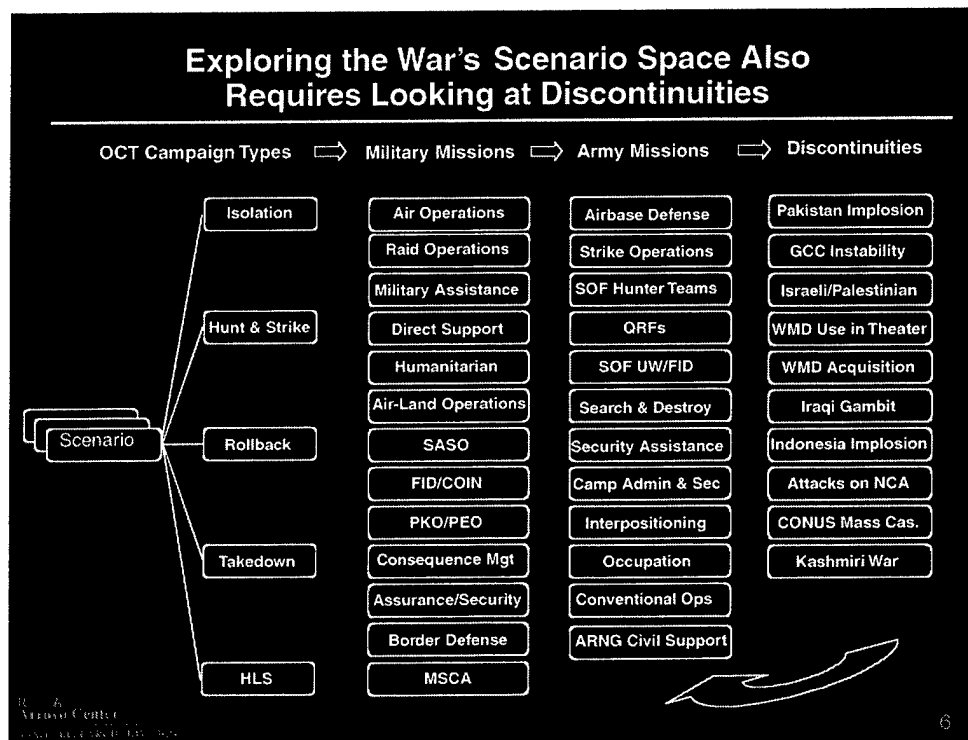
With that background in mind, we framed our objective as providing an early assessment of the war's implications for the Army. We stressed "early" not only because much of the assessment was conducted shortly after the attacks and during the first few weeks of the Afghan campaign but also because we recognized that much of the national-level policy underpinning the new war on terrorism was itself evolving and would continue to do so in the months (and years) ahead. The President and Secretary of Defense have since added more details and directives on objectives, scope, and instruments, but a great deal remains to be resolved in these areas. Even with Afghanistan diminishing as a central focus of counterterrorism combat operations and the experience being digested for future operations, in the larger context of the global war on terrorism, these remain early days and may remain so for a considerable period. Furthermore, the aftershocks of the war with Iraq will take some time to play out.

Our approach was relatively straightforward. It was a modified version of a process known as "strategies to tasks." That process seeks to develop a means for moving from broad strategies to corresponding military activities at the operational and tactical levels.² Derivative of those activities in our research, we then explored likely war on terrorism missions involving Army forces. We began by identifying a range of scenario types and operating environments that might

²For a description of the process see Thaler (1993).

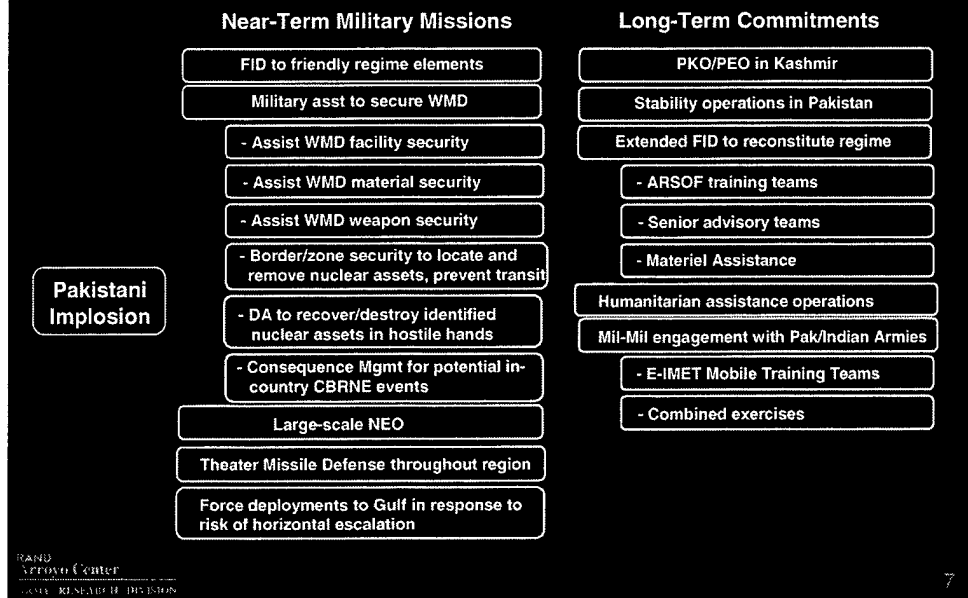
reasonably be encountered in the coming years as part of the war, including Afghanistan and the surrounding Central Asia region. A mix of structured scenarios and focused brainstorming served to define a plausible and representative set of contingencies that broadly captured the "scenario space" likely to be encountered.

Looking at these various scenario types, we then explored alternative offensive counterterrorism campaigns that might emerge and, on that basis, the derivative military and specifically U.S. Army missions involved. The team then looked across these missions to determine the common threads and the resulting demands and requirements implied for the Army.



Up to this point in the analysis, the project team's methodology was rather straightforward in its connections between strategies and tasks. However, the final stage of the methodology examined possible "discontinuities" or unpredictable and uncontrollable events that might fundamentally alter the campaigns, military missions, and Army missions involved in each scenario. The exploration of discontinuities allowed the project team to grapple with the possibility that individual campaigns can—on the basis of a few or even single events—metastasize into radically different scenarios. The September 11 attacks are a prime example of such discontinuities. Others include the collapse of states with especially threatening WMD-related capabilities, a mass-casualty attack on the United States, confirmation of terrorist acquisition of nuclear weapons, the unanticipated political collapse of friendly governments considered essential to waging the war on terrorism and their replacement by hostile regimes, and unforeseen new marriages among terrorist groups, or groups and state sponsors, that dramatically transform the level and types of threats posed to the United States.

Discontinuities Can Radically Change Course of Events and Military Demands



An example of a major discontinuity is depicted here, the implosion of Pakistan's government. As indicated, such an event could trigger a number of mid- and long-term missions, many involving Army forces. The project team analyzed a number of such potential discontinuities and used them to drive repeatedly through the strategies-to-tasks methodology, again linking the resulting scenarios to general military and specific Army missions. The intent was to further expand the range of scenario space covered, the possible resulting military demands, and Army responsibilities that might emerge in the face of such dramatic shifts in the security environment.

The War on Terrorism Will Impose Two Types of Additional Demands on the Army

- More frequent and more long-term deployments
- More and different counterterrorism (CT) capabilities, particularly at lower end of conflict spectrum

Plus expanding homeland security requirements

2002
Strategic Center
U.S. Army
1000 Army Ave., Suite 1000
Fort Monmouth, NJ 07731

8

Through repeated iterations of the strategies-to-tasks methodology, the project team gradually mapped the likely contours of the Global War on Terrorism scenario space. This, in turn, led to greater understanding of the Army's likely involvement in the war.

The research concluded that the war on terrorism will impose two major classes of demands on the Army. First, the Army is likely to encounter more frequent and more long-term deployments. Second, it will face a requirement for enhanced counterterrorism strike capabilities. We next explain why we believe this to be the case. The Army will also face a substantial and enduring requirement for homeland security missions, but these issues were not examined here in detail.

The War Will Generate Repetitive Deployments, Additional Long-Term Commitments

- New peace operations, SASO, and military-to-military engagement to stabilize regions
- Build and sustain a network of antiterror coalitions
- Support to allies/coalition members threatened by terrorists
- Overseas support for U.S. government agencies, indigenous resistance groups, and UN/regional PKO contingents
- Support for homeland security
- Existing Army commitments will endure (e.g., SFOR, KFOR)

Iraq a major new requirement

RAND
ARMED FORCES
RESEARCH DIVISION

9

Any successful war on terrorism will involve substantial efforts to mold the international environment in ways that reduce the effectiveness of terrorist organizations. This entails creating the conditions and influence necessary to both counter various terrorist organizations and reduce the likelihood of future groups arising, at least ones posing serious threats to U.S. interests.

Because the administration will want to deal proactively with fertile areas for incipient terrorist groups, the Army can expect to conduct more peacekeeping operations (PKOs), stability and support operations (SASOs), and military-to-military engagement activities in unstable or marginally stable regions.

The Army can also expect a significant increase in its military-to-military security cooperation in a variety of regions as a result of Office of the Secretary of Defense and regional combatant commander efforts to sustain the network of overlapping coalitions necessary to pursue the war. Furthermore, the Army will likely be called on to provide sustained support to allied and friendly nations that come under attack by terrorists with global reach and provide a range of support to U.S. government agencies participating in counterterrorist or antiterrorist activities abroad.

Repetitive Deployments

Peacekeeping and stability operations could draw substantial ground forces into regular rotational deployments for multiple years. The Army already has long-term commitments in such places as Bosnia, Kosovo, and the Sinai, and, in all likelihood, these will continue. Indeed, the events of September 11 have if anything increased pressure for U.S. forces to remain as a stabilizing influence. As of mid-2002, the United States had about 2,000 troops stationed in Bosnia and another 5,000 in Kosovo. Even if further scaled back, these troops are unlikely to be withdrawn, in part to ensure that these zones of instability do not become future terrorist breeding grounds or sanctuaries.³

Adding to these ongoing commitments will be substantial military operations against terrorist groups such as those under way in Afghanistan. About 6,000 U.S. Army soldiers are committed to operations there. In addition, the need to stabilize Afghanistan and to prevent al Qaeda from reestablishing its infrastructure is a stated goal of the United States. While Afghanistan is only one of many possible models for future operations, it does indicate the scale and duration that can be entailed in rooting out terrorists and their infrastructure. Other sizable contingencies are possible, not only in Central Asia but also in Southwest Asia, Africa, and Latin America. The U.S. military presence in Djibouti is another useful harbinger. As part of the war on terrorism, U.S. troops now occupy Camp Lemonier, a previously abandoned encampment in this remote enclave on the Horn of Africa. As of early January 2003, 900 American personnel (primarily Marines) were deployed there, including special operations forces (SOF) elements, with another 400 personnel offshore. Formed into the Combined Joint Task Force (CJTF)—Horn of Africa, these soldiers are positioned primarily to wage war on al Qaeda elements and their supporters in Yemen, Somalia, Kenya, Sudan, Ethiopia, Eritrea, and Djibouti. As in Afghanistan, the expectation is that the U.S. presence will be there for several years, with most personnel rotating on 180-day tours.

Perhaps the most demanding aspect of repetitive deployments is the prospect of stability operations involving the lengthy presence of significant numbers of ground forces. As part of the war on terrorism, these will be largely aimed toward “at-risk” states—states failing or already having no central government to speak of and therefore attractive as bases of operations for terrorist organizations or broader insurgencies. The United States must deal with both weak states that may well look to it for support in dealing with their own internal terrorist and

³The Director of Central Intelligence has noted that Islamic extremists still find favor within sectors of the Muslim community in Bosnia, where some mujahedin still remain from the Bosnian wars. This presence, when combined with other sources of instability throughout the Balkans, highlights the risks associated with a departure of U.S. forces (Tenet, 2002, p. 24).

insurgency problems as well as deal with "failed states" that may be totally dysfunctional and incapable of any serious central governance. Both problems took on a different meaning and priority following the attacks on the United States. Formerly viewed primarily in terms of human suffering and regional instability that could result from state collapse, now the dimension of such states serving as future Afghanistan-like bases for terrorists and their infrastructures has been added. Recent policy statements also emphasize eliminating sanctuaries as a primary U.S. goal in the war (Office of the President, 2003, pp. 17, 22).

While actual force requirements will range widely based on the type of contingency, in many instances the numbers of soldiers needed could be significant. Based on past experiences, for example, stability operations when pegged to population size, the growing level of urbanization, and degree of violence, can yield high numbers of troops and extended durations.⁴

Expanded Engagement

Because the United States plans to conduct the war on a wide front, the Army can expect to find itself carrying out other types of operations as well. Expanded training of foreign militaries in counterterrorism operations is and will continue to be a major element of the U.S. war effort. Such operations are likely to include growing involvement with new partners and in geographic areas previously of little or no interest to the United States (e.g., Yemen). As terrorist groups gravitate toward unstable regions or dysfunctional states for secure bases of operations, U.S. counterterrorism efforts will blend into a host of much broader counterinsurgency and foreign internal defense (FID) activities. Friends and allies threatened by terrorists will also expect our support, as is the case now in the Philippines and Georgia. Army forces will play roles in all of these activities. Therefore, Army Special Operations Forces (ARSOF) elements will likely see a large and continuous portion of their time spent in training other countries' forces to combat terrorism via the FID mission. This will be especially true where terrorist targets and activities are embedded in larger insurgencies.

Homeland Security

On the home front, the Army can expect to support homeland security through various steady-state activities, such as maintaining WMD civil support teams and responding to potential emergencies, including but not limited to terrorist attacks.

⁴For an excellent summary of past stability operations, the factors involved in determining ground force requirements, and the potential magnitude of stability operations in countries with large, increasingly urbanized populations of the sort that the United States might face as part of the war, see Quinlivan (1995, pp. 59–69). The historical record indicates numbers ranging from one soldier per 1,000 population to 20 soldiers per 1,000 population.

To be sure, civilian capabilities are growing as part of the new homeland security structure. Therefore, the Army will primarily be tasked to provide supplemental support to other agencies and civil authorities as necessary. Yet future attacks could be of a type and scale that compel civilian leaders to demand a large military response, not so much to deal with immediate damage but more to reassure the American public and to mitigate the long-term psychological (and economic) consequences. For example, the loss of a civilian airliner to missile attack could trigger an immediate need for extensive patrolling and securing of sizable perimeters around all major U.S. airports, both to protect against future attacks and to ensure airliners are not grounded indefinitely. Such "reassurance" missions could require large numbers of soldiers throughout the United States for extended periods. This represents an extreme situation, but one that could materialize, with important implications for demands on the force. In this sense, some homeland security responsibilities can be viewed as posing yet another short-notice, long-term deployment possibility for the Army.

Taken together, these trends strongly suggest that the Army will face significantly higher demand for repetitive, long-term deployments. These war-related deployments will for some period occur in conjunction with ongoing ground force commitments in Iraq. While it is much too early to determine the size and duration of ground force requirements for postconflict stabilization in Iraq, with a population of about 23 million and a very complex internal situation, a considerable and lengthy U.S. ground presence will likely be necessary. The Army will face major force rotations as a result.

Some CT Missions will Require New Combinations of Combat Capability and Extremely High Responsiveness

- **Operations and targets may exceed SOF/Light capabilities**
 - Large areas and protracted operations
 - Simultaneous takedowns of multiple sites
 - Hardened and well-defended targets
- **President/Secretary of Defense will demand options against high-value, time-sensitive targets**
 - Full range of terrorist assets, key personnel
 - Worldwide
 - With high confidence of success (e.g., WMD elimination)

PAND
AFTRAD CENTER
JOINT RESEARCH DIVISION

10

The Offensive Campaign

While the United States always reserved the right to strike terrorists to disrupt or prevent attacks, following the attacks of September 11 the President and Secretary of Defense have made waging an offensive campaign—including preemptive strikes—a central feature of the war.

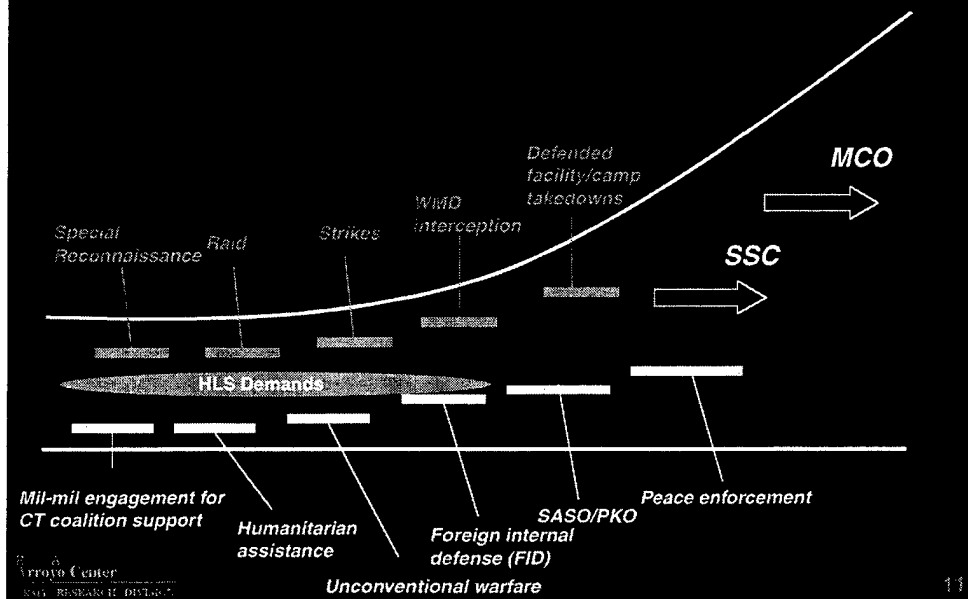
Offensive counterterror operations will require new combinations of joint capability and responsiveness. Some missions will fall within the capabilities of existing SOF, Rangers, or light infantry. However, certain classes of targets are likely to require more or different types of ground units. For example, a large complex of well-defended terrorist installations in difficult terrain might require robust forces and an extended operation (e.g., Tora Bora in Afghanistan). Or the mission might call for a simultaneous attack on multiple sites spread across a large area. Also, operations involving Rangers or light infantry will frequently require substantial aviation support, which might have to come from other units. Furthermore, many of these operations will occur on short notice and require rapid response. National decisionmakers will insist on having the capability to attack high-value but fleeting targets in far-flung places with high confidence of success. In light of the unprecedented mass civilian casualties of September 11, the ability to seize or neutralize weapons of mass destruction will assume especially high importance.

Terrorist organizations can be expected to adapt to U.S. capabilities and work to find ways to make themselves even harder targets, even if located. They can be expected to adopt a variety of access- and area-denial techniques, including locating in remote and inaccessible regions. They will also work to find ways to deny U.S. low-risk military options against them, such as bombing and missile strikes. Instead they will seek to force the United States to attack with ground units. The Army will likely be required to provide a significant part of the joint capabilities necessary to take down such targets on a worldwide basis.

Recent operations in Afghanistan revealed the difficulties that small units can run into when confronting sizable numbers of entrenched guerrilla forces. These problems were encountered when the United States had a substantial military capability in Afghanistan, including bases relatively close by. The proximity of these bases allowed for a quick recovery in the face of unexpected resistance. Future operations will very likely arise in which the U.S. military will be required to eliminate remote targets in the absence of a prepared—or with a minimally prepared—area of operations. Such targets may also prove to be time-urgent in the sense that intelligence reveals especially high-payoff assets (the transitory presence of key operatives or leadership cadres) or especially threatening activities (the confirmed presence of weaponized chemical or biological materials that may soon migrate elsewhere).

These characteristics define a uniquely difficult class of targets for the Army, requiring combinations of combat power and responsiveness that exceed even the goals of today's transformation. The advent of the war on terrorism has fundamentally altered defense planning priorities and may require the Army to develop or tailor a new set of capabilities in response. In particular, it will need to modify some forces to provide additional combinations with high responsiveness and substantial combat power.

The War Confronts the Army with Two Classes of Activities at Lower End of Conflict Spectrum



To summarize, the war can expect to face two broad classes of activities or demands from the war, both occurring largely at the lower end of the conflict spectrum. The types of missions and activities involved in the strike or search-and-destroy offensive campaign are shown on the upper tier, ranging from the traditional SOF direct action missions up through more substantial operations against difficult, well-defended targets, requiring sizable forces. The lower tier depicts the long-term deployment activities entailed in efforts to influence the broader environment in support of the Global War on Terrorism. Of course, overlaying both of these classes of overseas activities is the set of still-evolving demands on the Army to support homeland security.

What Demands Loom for the Army?



*What Responses Should the Army
Consider?*

ARMY
INSTITUTIONAL
COUNCIL

POSSIBLE ARMY RESPONSES

Given these anticipated contours of the war and resulting demands, what responses should the Army consider?

Army Needs to Rebalance Force and Further Leverage the Transformation

- **Explore options to address**
 - Likely increase in tempo
 - Low-Density/High-Demand (LD/HD) problems
 - Increasing overseas support requirements

- **Expand light-medium end of force capabilities**
 - Enhance ARSOF and light force capabilities
 - Expand expeditionary capabilities in light-medium regime

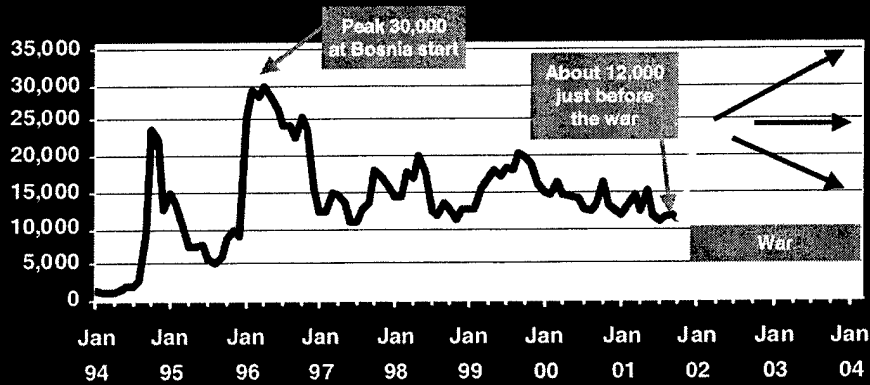
PARC
APPROX CENTER
AND RESEARCH DIVISION

13

The project team aggregated the Army's options into two broad categories. The first category is the slate of alternatives to address the effects of increased long-term commitments: likely increases in tempo, shortages of low-demand/high-density (LD/HD) skills, and increased overseas support requirements. The second category of responses focuses on enhancing ARSOF and light force capabilities and expanding expeditionary capabilities in the light-medium regime to deal with more demanding future targets in the war on terrorism.

Commitments Reduced Before the War But Likely to Increase Again

Active-Duty Army on Overseas Temporary or Rotational Deployments



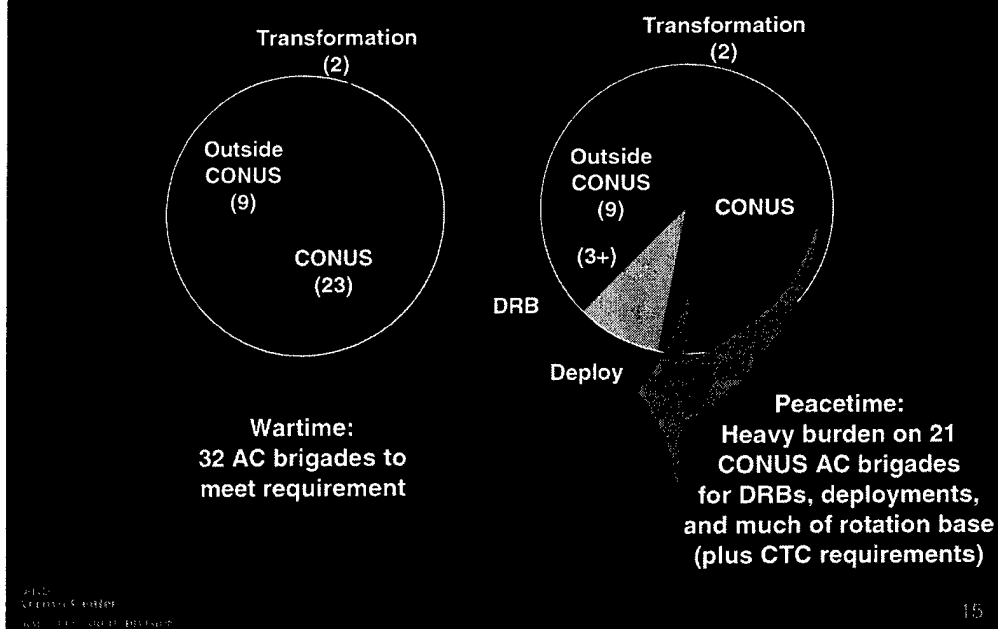
The war on terrorism is likely to increase Army troop deployments. The number of Army soldiers on temporary overseas deployments rose rapidly in the mid-1990s. It peaked at nearly 30,000 at the entry to Bosnia, then hovered between 15,000 and 20,000 until recently. The number fell to about 12,000 on the eve of September 11. Operations in Afghanistan and elsewhere increased overseas forces rapidly.

The war on terrorism has already added an active force rotational assignment in Afghanistan. The 101st Airborne Division (Air Assault) and the 82nd Airborne Division have already had a brigade rotation there, while the 10th Mountain Division (Light Infantry) is getting a brigade rotation under way. It is likely Afghanistan will continue to tie down a light infantry brigade for the foreseeable future as units still search for al Qaeda remnants that include operations along the porous Afghan-Pakistani border.

Beyond this, the future demand is unclear. Setting aside the ongoing deployments to Iraq, among the possibilities is to retain the current level of force in Afghanistan and the corresponding rotations to sustain it (middle arrow). Another is to significantly draw down these numbers to a much smaller "steady-state" force (lower arrow). In both instances, the overall level of rotational deployments is assumed to closely resemble that in early 2003 elsewhere. A third major vector envisions another major terrorist event (or discontinuity) that quickly produces

another sizable deployment in addition to ongoing activities (upper arrow). Once again, these future demands, whatever shape they take, would be undertaken for some period in conjunction with an Army presence and supporting force rotations in Iraq.

Peacetime Constraints and MCO Readiness Limit Rotational Deployment Base



Managing Tempo

Estimating the impact of the war on Army deployment, personnel, and operational tempos is a function both of the demands imposed by the war and of the supply of Army forces available to meet those demands. Determining the "supply side" first requires a basic accounting of available forces.

As shown in the figure above, the active component force consists of 32 maneuver brigades of all types (light, heavy, and medium with the introduction of the Stryker Brigades). Each maneuver brigade contains roughly 3,000 to 4,000 troops, depending on brigade type and level of augmentation by higher echelons. Nine of these brigades are stationed outside the continental United States (CONUS): two brigades in Hawaii; one brigade in Alaska; four brigades in Europe; and two brigades in Korea. The remaining 23 active component maneuver brigades are in CONUS, of which two are planned to be involved in transformation activities at any time and therefore unavailable. In wartime, all 32 brigades would be available to meet requirements. During peacetime, rotations for additional overseas deployments (e.g., SFOR, KFOR, Afghanistan, Southwest Asia) draw heavily on the 21 active brigades that are not transforming in the United States, minus those kept as "ready" for immediate deployment: the Division Ready Brigades (DRBs) of the 82nd Airborne Division and 101st

Airborne Division (Air Assault).⁵ In addition, the Army forces stationed in Europe are available for deployments, as has been the case in the Balkans. Furthermore, in the case of peacekeeping operations, reserve component brigades have been drawn on as well.

Current personnel policies heavily determine the size of the deployment base. The Army must be prepared to go to war, but it generally operates under peacetime policies. Each of the services has decided to use peacetime allocation rules to manage Operation Enduring Freedom. The protracted nature of the war on terrorism will make wartime personnel management policies and large reserve call-ups infeasible. Therefore, the war is likely to be waged using peacetime allocation rules.

Under current assignment and force management policies, it can take elements of up to five active component brigades to support one deployed brigade. The five brigades affected include the deployed unit, the one that just came back from deployment that needs time to recover, the next one that is preparing to go, and the two sister brigades that have to cross-level personnel to help fill out the deploying unit. On the surface, this might seem excessive, but taking peacetime personnel policies (important to quality of life) and training requirements into account, it becomes clear that the 5:1 ratio has merit and an analytic basis. The buffer periods after unaccompanied tours in Bosnia, Kosovo, Afghanistan, and Korea remove a significant number of personnel from the rotation base. In addition, peacetime rules exclude from deployment those scheduled to attend school as their next assignment.

If continued, this practice will have major implications in the years ahead for how much stress could be placed on the force. Under peacetime goals, the total number of active uniformed personnel available for deployment is significantly less than the number of total active personnel in the force. This stems from a number of policies to manage personnel in peacetime in ways that both maintain warfighting readiness for major combat operations and that seek to maintain quality of life for soldiers, all while reducing the total turbulence on the active and reserve components. These peacetime personnel practices include efforts to avoid deploying soldiers who cannot be in-country for a designated period of time (typically at least 90 days) because of other peacetime claims on their time and quality of life factors. In addition, for those soldiers facing a pending Permanent Change of Station (PCS) or an End of Term of Service (ETS), the goal is to return

⁵Estimating the impact of repetitive deployments on the active maneuver brigades must also factor in the differences in those brigades and in their suitability for the required deployment missions. While the Army has demonstrated considerable flexibility in adapting units to meet mission needs, especially in terms of peacekeeping and stability operations, there are clear limits to how much available brigades are interchangeable.

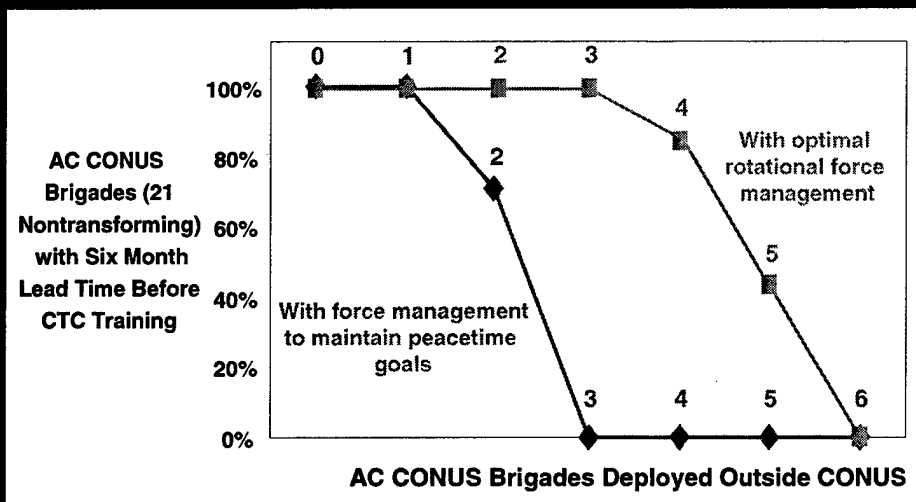
them to their home station at least 45 days prior to their PCS/ETS. Also, to ensure quality of life and equity across the force, those on unaccompanied deployments may receive a month of stabilization from overseas deployment for each month they are deployed. Although these stabilization goals are not always observed in full, their total effect is to take what is an approximately 4 percent wartime nondeployment personnel rate and raise it to a nondeployable rate as high as 40 percent. This cuts across the force and reduces substantially the number of brigades readily available for deployment (Orvis, 2002).

The Army sometimes does not observe peacetime stabilization goals in full, deploying soldiers covered by the goals and hence reducing quality of life. The Army personnel system also adapts in other ways to supply units for deployment. Among the techniques is to reduce the number of "nondeployable" soldiers in a given unit or installation designated for an upcoming deployment. This involves "fencing" soldiers for that upcoming deployment who otherwise would move to different units for their career progression or to meet other Army needs. Another technique is to strip out and replace the soldiers close to a PCS with personnel from other units that meet deployability standards. However, these actions in turn can lower the readiness levels of those other units. Furthermore, the "fenced" soldiers are now unavailable for other deployments, reducing the remaining available rotation base (Orvis, 2002).

The war on terrorism also does not lend itself to predictable patterns. Rather, it can trigger unanticipated and fairly rapid deployments that do not provide the personnel system sufficient lead times to reduce nondeployable rates in designated units or installations tagged with the deployment. Consequently, if the war on terrorism results in substantial additional temporary rotations, especially if coupled with an extended postconflict presence in Iraq, then the number of active component brigades available to support the rotation base could shrink dramatically. Although some relief can be provided by drawing more heavily on the reserve component, as is now the case in the Balkans, for many of the contingencies, hostile conditions will necessitate use of active forces, at least until the situation is stabilized.

The size of the available rotation base is also directly linked to the Army's requirement to maintain the readiness of its forces for fighting regional wars. One measure in assessing such readiness is whether brigades have sufficient time in the United States with stable personnel to prepare for a Combat Training Center rotation to maintain these warfighting skills. This includes time required for progressive collective training exercises at home station.

Keeping More Than Two to Four AC CONUS Brigades Deployed Harms MCO Training



One important metric for measuring the deployment burden is the training time available across the force to achieve desired levels of readiness for major combat operations (MCOs). Readiness is heavily influenced by the amount of time available to train. One measure of time available for MCO training is whether brigades have six months in CONUS with stable personnel to prepare for a Combat Training Center (CTC) rotation with progressive collective training exercises at home station.

This figure provides one example of how striking the impact of rotational deployments on brigade-level combat training can be. This figure includes only the 21 nontransforming active component brigades available in CONUS. The measure of merit for readiness is a six-month stable lead time for CTC training (y-axis). The lines illustrate how quickly brigade-level deployments affect the percentage of remaining CONUS-based brigades that can meet the six-month lead time (x-axis). The first line assumes that peacetime personnel policies are enforced. Except for the division ready brigades, this results in a five-to-one ratio for a brigade rotation. The second line is based on modified policies that include planning specific rotations far enough in advance to allow the personnel system to avoid assigning to those units soldiers who are temporarily stabilized (i.e., aligning PCS and ETS dates in the unit enough to allow the entire unit to deploy without personnel turnover) or rotating units overseas even with personnel close to PCS or ETS dates, requiring those personnel to return to CONUS in the middle

of a rotation for their PCS or ETS. The net effect is to achieve about a three-to-one ratio for brigade rotations. As shown, even a relatively small number of brigade-level deployments can very quickly draw down the percentage of remaining brigades that can meet the six-month criterion, even when adopting optimal rotation force management policies.

Certainly relaxing the six-month lead time reduces the impact, as does including additional active component brigades from outside CONUS in the rotation base, along with selective use of reserve component units. Still, this example illustrates the magnitude of the effects that can cascade across the force when adding even relatively small numbers of temporary deployments. The reasons behind these large effects are complex. Much is driven by the cycle of needing at least three brigades to meet the single-brigade deployment for commitments of any significant duration. Assuming a six-month deployment for any given brigade, this means an additional two brigades are directly affected (one preparing for the next six-month deployment to relieve the deployed brigade, and one brigade recovering from its six-month deployment). In addition, filling out units scheduled for deployment to ensure that they have the required number of deployable soldiers often involves reaching into still other brigades serving as a pool for these soldiers. This in turn can erode the ability of these brigades to meet their stated training goals. As a result of these and other factors, repetitive rotations of extended duration can have very large impacts on both readiness and soldier quality of life.⁶

Among possible responses, as noted, the Army could adopt more rotational force management policies to better distribute "nondeployables" in the force. But rotational force management has many consequences. It requires long lead times to commit units for rotations in order to allow the assignment process to adapt. Even with long lead times, the assignment system operates under substantial constraints, which may make it difficult to place soldiers in appropriate positions in terms of skill and career development. As more units are required to cover rotational deployments, the number of units that can accept a soldier returning from Korea, for example, diminishes.

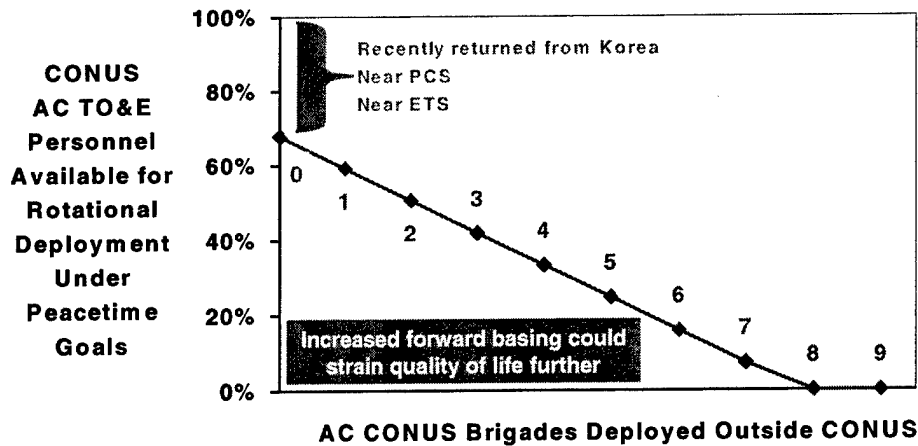
It is important to remember that although rotational force management helps alleviate the issue of nondeployability in peacetime, it should also be robust in the face of wartime deployment requirements. In other words, even though soldiers who are stabilized would be concentrated in certain units not slated to rotate overseas, these same soldiers are still available for deployment under wartime rules.

⁶For an assessment of why even relatively small deployments induce considerable effects in the larger force well beyond the deploying units, see Polich, Orvis, and Hix (2000); Sortor and Polich (2001); Orvis (2002).

Throughout the 1990s, the Army also employed a variety of techniques to ease the deployment burden, including using reserve component forces, adjusting assignment policy, and drawing on allies and private contractors. Assuming existing readiness requirements and peacetime personnel practices continue, repetitive deployments stemming from the war on terrorism will again tax the existing rotation base and the Army's deployment tempo. How much it does so will depend heavily on the deployment demand, but several of the envisioned possibilities could consume the equivalent of multiple brigades. A postwar stability operation in Iraq could well make far greater claims, although presumably once conditions stabilize there an increasing portion of this rotational deployment can be assumed by the reserve component.⁷ Furthermore, overall readiness requirements for future MCOs must be revised in light of the military defeat of Iraq, possibly reducing the expected training levels across the force for these types of operations.

⁷Army National Guard brigades are projected to begin rotations to Iraq in early 2004 (DoD, 2003).

With Six or More AC Brigades Deployed, Most CONUS Personnel Would be Overseas or Unavailable for Deployment



Another important aspect of the deployment burden centers on the impact of repetitive deployments on individual soldier quality of life. Again focusing on just the 21 available active maneuver brigades in CONUS, this chart identifies the percentage of personnel who would be available for rotational deployments with strict adherence to peacetime goals, goals which are in large part designed to maintain soldier quality of life.

Illustrated here is what percentage of personnel would be available for rotational deployments under recent peacetime policies for stabilization (y-axis). Even with *no* temporary overseas deployments, on any given day about 35 percent of the Army's soldiers are not available for rotational deployments because they recently returned from unaccompanied tours to Korea or are near a PCS or an ETS. Each brigade rotationally deployed further reduces the personnel available for more deployments as the line shows. Theoretically, at eight brigades deployed, everyone in CONUS would be either overseas or unavailable for deployment. The personnel system would adapt long before this could happen, but the graph nonetheless indicates the effect on soldier quality of life arising from increasing deployments.

Although this figure shows the effect on the rotation base for temporary rotational deployments, a similar effect occurs for rotations on tour to Korea, because the soldiers stabilized cannot contribute to the rotation base for Korea. If additional

forward bases are established using unaccompanied tours as in Korea, the start point of the line on this chart shifts down, worsening the effect on quality of life.

Some Capability Shortfalls Will Appear in LD/HD Skills and Units

- LD/HD shortfalls arise from CT, homeland security, and rotational deployments because these missions compete with MCO requirements for specialized skills

Examples of significant LD/HD requirements

Counterterrorism

SOF (including Special Forces, CA, Psychological Operations)

MI (including linguists)

Homeland Security

Medical, Chemical, Biological

Rotational Deployments

Aviation, MP, MI, Signal, Medical

ARMY
STRATEGIC CENTER
FOR
TRANSFORMATIONAL
OPERATIONS

18

These repetitive deployments will also further exacerbate the Army's existing shortfall of so-called "LD/HD" specialties. Counted among the high-demand assets for the offensive war on terrorism will be special operations aviation, chemical and biological detection and mitigation teams, civil affairs, and psychological operations specialties. Military intelligence units, including linguists, will also be in constant demand to cover increasingly diverse parts of the world in the search for terrorist cells and their elusive supporting infrastructures. Also, as the Iraq case shows, many of these same assets will be requested by regional combatant commanders for missions falling outside the war on terrorism, including MCOs and transitional stability operations following such conflicts.

The war itself and the subsequent stability operations proved to be major consumers of specialized capabilities—for example, chemical-biological detection and mitigation teams (required well into the postconflict phase), civil affairs personnel, engineering units, and military police. Certain categories of specialization may be further taxed because of homeland security responsibilities. The new homeland security structure is designed in part to see that nonmilitary assets are available for many such missions and to dedicate certain Army reserve component capabilities for these missions, such as the WMD Civil Support Teams of the Army National Guard. While these efforts should minimize the tension

between homeland security and overseas demands for these limited assets, plausible contingencies exist where homeland security demands could be so high that they will compete with the broad range of overseas needs of regional combatant commanders.

The severity of the problem, in terms of both numbers and maldistribution between active and reserve components, will require a detailed assessment to provide a solid understanding of the LD/HD problem, especially in light of ongoing operations in Iraq and the emphasis on rapid decisive operations. This baseline, combined with assessments of how various futures could alter demands, will allow for systematic estimates of shortfalls imposed by the war on terrorism. Understanding the scale of any shortfall is necessary to determining which options best address the problem.⁸

That said, the Army will need to alleviate these pressures, and explore alternatives for doing so. Among the alternatives is further expanding those trained in more than one specialty, modifying the skill mix of the active force (e.g., trading some maneuver units to fill specialized skill slots), or seeking an end-strength increase in the number of active soldiers in specialized skill areas.

⁸Secretary Rumsfeld's July 2003 initiative on Rebalancing Forces calls for specific actions to address the problem of high-demand specialties residing exclusively or largely in the reserve component.

Options to Address Deployment Stresses

Responses during the 1990s

- Cross-utilization
- RC employment
- AC assignment policy
- Outside CONUS forces used
- Allies and contractors

Additional options

- Cross-training
- Modify AC skill mix
- Increase AC end-strength

During the 1990s, the Army employed several successful strategies to manage the competing demands.





























- Soldiers from one type of unit were assigned to another—e.g., infantry to military police. They received only minimal training. However, they broadened the base of units that could be drawn on.
- Some skills were provided by the reserve component instead of the active component. This technique meant that active component units with specialty skills did not have to respond to every deployment. Many of the LD/HD skills have been transferred to the RC, and thus it has a larger complement of these types of skills.
- The personnel system managed active component assignments to avoid burdening units about to deploy with soldiers who were stabilized. Typically, this included not assigning soldiers who could not deploy (e.g., one recently returned from Korea) to a unit slated for deployment.
- During lengthy repetitive deployments, units outside CONUS covered some rotations. In effect, this technique broadened the deployment base beyond CONUS forces.

- The Army increasingly relied on allies and contractors. Both can provide some of the scarce support skills, and they have been used extensively in places like Bosnia.






These responses could be extended further in the future. Other options include altering the skill mix in the active component or adding end-strength to help address competing demands. The Army will further need to explore options for expanding the rotation base, including drawing more heavily on active overseas forces and reserve component brigades and further modifying peacetime personnel policies. Only additional experience and experimentation will determine how far peacetime practices can be modified without undermining necessary readiness and quality of life in ways that hurt retention and recruitment.⁹

⁹For a summary of recent retention and recruiting trends, as well as Army adjustments in the personnel system in part to deal with increases in the frequency of deployments, see Hosek (2003).

Evaluating Alternatives for Training, Employing, and Sizing the Force

		End-Strength Constant			End-Strength Increase		
	No Change	Cross-train AC	Use RC More	Change AC Skill Mix	Add 1 Div	Add LD/HD Pers.	Add Pers. in Divs
LD/HD							
Peacetime AC Maneuver Tempo							
Peacetime RC Tempo							
MCO Readiness							
Cost	0	~0	\$	~0	\$\$\$\$	\$\$	\$\$

RAND
Arroyo Center
ARMY RESEARCH DIVISION

 Causes many problems	 Solves many problems
 No effect	 Causes some problems  Solves some problems

This chart reviews the material on personnel and training to compare the six alternatives aligned across the top on the five criteria listed along the left hand column: the LD/HD issue, peacetime tempo for active component maneuver units, peacetime tempo for reserve component units of all types, MCO readiness, and cost.

The base case refers to the current force structure with the ongoing Global War on Terrorism, labeled "No Change" on the chart. This status quo imposes no additional costs, but the demands of the war will exacerbate the LD/HD problem, peacetime tempo in the active component and reserve component and MCO readiness, as indicated by the predominately black crosshatched box.

Three alternatives involve no change to end-strength. Cross-training active component units would reduce some LD/HD problems, such as force protection and chemical and biological detection (mostly white crosshatched box), but would not help with specialties like aviation or medical. The cross-training imposes an additional training burden, increasing active component tempo. It has minimal effects on the reserve component or on MCO readiness. Although there may be some additional costs, they would be minor compared with the alternatives.

Another alternative is to increase use of the reserve component. Because many LD/HD skills are already in the reserve component, this would help with LD/HD. If reserve component maneuver units are also used, active component tempo could be reduced. If reserve component involvement were limited to LD/HD

skills, there would be little effect on active component tempo. For the reserve component to fill LD/HD roles, the units would have to increase readiness and potentially spend more time deployed, worsening reserve component tempo (black box on chart). Using reserve component capability in this way would also diminish the reserve capacity in the event of an MCO. The costs of this alternative would include additional training resources, equipment, and pay for the reserve component units.

We also explored the option of increasing the number of spaces for LD/HD skills, and we used as our analytic basis 10,000 spaces—our very rough approximation of what might be needed. This number should not be taken as definitive because many events could occur that would cause it to change. One way to find the 10,000 LD/HD spaces is to reduce other warfighting structure. While this approach would solve the LD/HD issue, it would reduce the active component units available for repetitive deployments, worsening active component tempo (rated black). The lower LD/HD requirements would mean less reserve component involvement, improving reserve component tempo. MCO readiness would increase because of the LD/HD fill but decrease because of fewer maneuver units.

We also examined three alternatives where end-strength increases. The first is to add a combat division. Because the LD/HD we calculate is outside divisional assets, an additional division has only a small effect on LD/HD. The additional division would spread rotational demands over a larger rotation base and improve readiness for an MCO. It would have no direct effect on reserve component tempo, although the Army might choose to rely less on reserve component forces for rotational deployments. Costs for personnel, equipment, and base operations would be substantial.

The next alternative adds the approximately 10,000 LD/HD active component spaces. This approach completely “buys out” the LD/HD issue. Because these are outside the divisions, it has little effect on active component maneuver unit tempo, but it does improve reserve component tempo for the LD/HD units there. Because there would no longer be a risk that LD/HD units would be deployed to a small-scale operation at the start of an MCO, readiness for it improves. Costs here would be for 10,000 active component authorizations and a small amount of equipment.

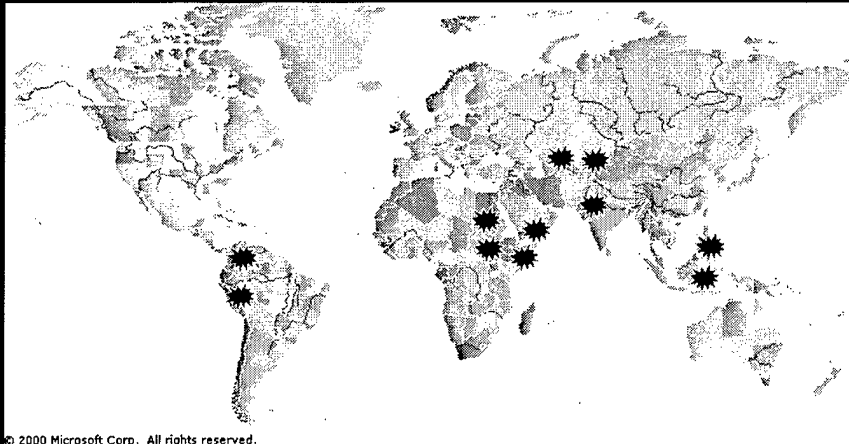
The final alternative is to spread the same 10,000 active component spaces to some or all divisions instead. Some LD/HD units could be located in divisions, such as MPs and aviation. Thus, some of the 10,000 spaces could reduce the LD/HD shortfall. Some of those demands, though, belong outside the divisions, so in this alternative those demands are not satisfied and the remaining forces increase the maneuver unit strength. This alternative provides some help for LD/HD and some relief for active component maneuver unit tempo. It does not

affect the reserve component. It improves MCO readiness because both the added LD/HD and added maneuver personnel would be available for the MCO. Cost here would likely be similar to the previous alternative.

For simplicity, we have considered the alternatives one at a time, although combinations of these alternatives might well be useful.

The project team's analysis of these various options suggests that none of them alone solves the problem. The overlapping issues of active component tempo, reserve component tempo, LD/HD issues, and cost ensure that no single policy change is sufficient to address the Army's increasing long-term commitments. However, any growth in end-strength would provide the largest benefit if tailored to LD/HD skill sets rather than adding Table of Organization and Equipment (TO&E) structure to the Army.

Increasing Worldwide Operations and Commitments Call For Rethinking Force Positioning, Infrastructure, and Support



PARAD
STRATEGY CENTER
ARMY RESEARCH DIVISION

21

With regard to overseas alignment, the geographical distribution of likely long-term commitments stemming from the Global War on Terrorism (shown as irregular star shapes on the chart) does not match well with the Army's current force positioning, infrastructure, and support structure. The Army's current overseas structure is essentially the product of the Cold War. With the exception of the Army's assets and structure in the Persian Gulf, much of the Army is not well positioned for likely war on terrorism commitments. Thus, if current trends continue, rather than relying on in-theater structures, most wartime commitments will require significant deployment of support assets to build a support structure. Combined with potential lengthy distances from robust theaters and CONUS, such commitments would be relatively stressing on deployment and sustainment capabilities and assets.

The war with Iraq and subsequent occupation have shifted substantial Army resources to the region. A future issue will be how this conflict transforms the long-term disposition of ground forces, support infrastructure, and prepositioning in the region. The long-term effect of the war and postconflict occupation could result in a sizable geographic shift in Army forward presence, support, and prepositioned assets. Decisions on this future disposition will be driven largely by political and military factors distinct from the war on terrorism, but that future alignment will present both new risks and opportunities for conducting the war. These must be factored in as part of the overall calculus. For example, at least in

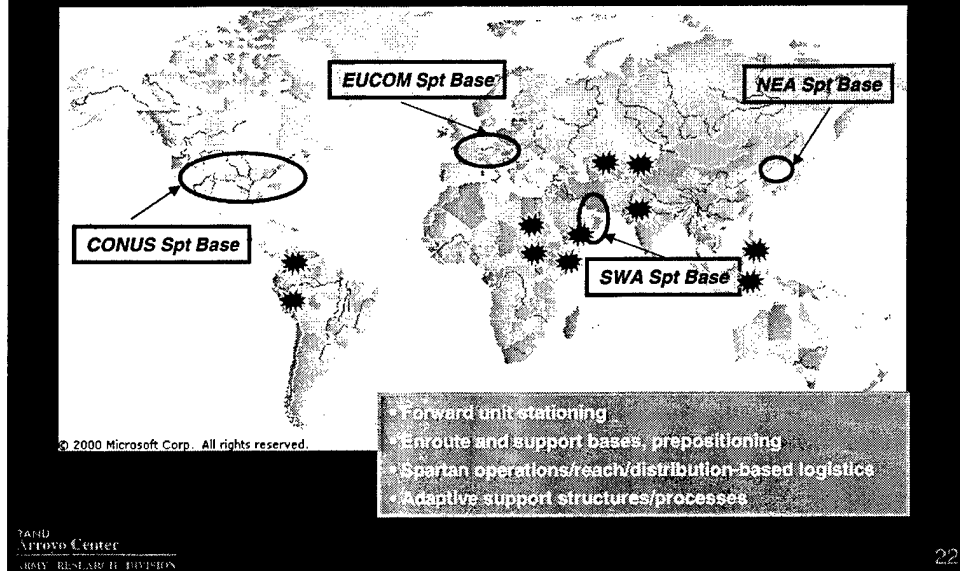
the near term, will U.S. forces in a postwar Iraq provide greater flexibility and rapid reach for conducting strike operations within the region? Alternatively, how will the U.S. military presence in Iraq influence the future profile of terrorism in the region? Will it stimulate more attacks or have a deterring and calming influence as Iraq is stabilized?

Overseas support requirements will increase in tandem with operational commitments. This is true of both the long-term activities to influence the international environment for combating terrorism and for more direct strike operations. As the war on terrorism takes on global dimensions, including possibly protracted operations in remote areas, a much more robust and flexible overlay of overseas interim operating and support bases will be required. Also necessary will be more efficient and distributed support techniques to sustain the scope and pace of operations without overtaxing the Army's logistics system. The Army's ongoing efforts to transform its logistics system (or Combat Service Support [CSS]) are instrumental for the war on terrorism. The emphasis on reducing logistics footprints for deployed forces through a variety of mechanisms, including demand reductions and distribution-based logistics using frequent flows of materials to units rather than stockpiling, provides the types of flexibility and responsiveness ideally suited to this war.¹⁰

These attributes will be especially desirable in the case of nonpermanent forward operating locations (FOLs), which may well proliferate as part of the war. This will likely include long-term support and staging of SOF and other combat capabilities required to dwell in remote and austere environments for extended periods, whether to conduct direct action missions or long-term FID and unconventional warfare undertakings. The CJTF-Horn of Africa is an excellent model of exactly this type of arrangement, including not only Special Forces but a diverse mix of joint capabilities covering a range of missions.

¹⁰For a description of the Army's logistics transformation efforts, see Peltz and Halliday (2003).

Increasing Worldwide Operations and Commitments Call For Rethinking Force Positioning, Infrastructure, and Support



While overseas basing and structure decisions typically occur at levels above the services, it is vital for the Army to provide well-supported input to this decisionmaking process. The manner in which DoD adjusts the U.S. overseas presence, in terms of basing, support structure, and agreements, will have a major effect on the Army's ability to contribute to the war on terrorism and remain an essential element of military operations across the spectrum of missions. Among the options the Army may wish to study and consider injecting into the process would be revised stationing outside CONUS (locations and types of units), the establishment of en-route and support bases, and revised prepositioning—locations and the types of prepositioned equipment and materiel. In conjunction, the Army can ease the burden posed by deployments to austere and distant locations by adopting Spartan operational concepts, continuing development of distribution-based logistics, and accelerating development and implementation of adaptive support structures built on modular and flexible organizational designs.

As the United States continues to move toward more expeditionary forces, the *National Security Strategy* identified the need for bases and stations beyond those long-standing ones in Western Europe and Northeast Asia (Office of the President, 2002a, p. 29). The war with Iraq may well accelerate these decisions. While the offensive war on terrorism is only one facet of overseas networks, future arrangements must support joint operational concepts for combating terrorism. The Army is a major stakeholder in the development of overseas

prepositioning and basing arrangements, and it needs to work through and articulate how the war on terrorism will affect its future support requirements.

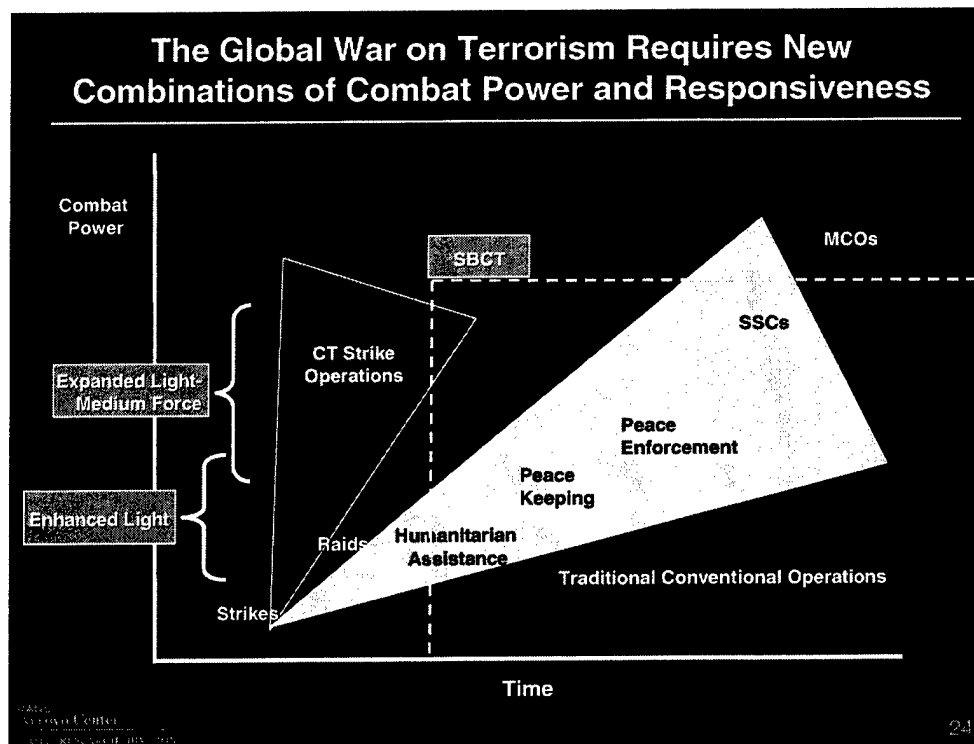
Army Needs to Rebalance Force and Further Leverage the Transformation

- Explore options to address
 - Likely increase in tempo
 - LD/HD problems
 - Increasing overseas support requirements
- Expand light-medium end of force capabilities
 - Enhance ARSOF and light force capabilities
 - Expand expeditionary capabilities in light-medium regime

RAND
NATIONAL DEFENSE
AND RESEARCH DIVISION

23

The offensive war on terrorism will require a range of multiservice combat capabilities. The Army currently can respond across the spectrum, from small raids to full battles involving heavy forces. However, the Army will have to explore additional force combinations providing new mixes of combat capabilities and rapid responsiveness. It needs to expand the light and medium portions of the force.



EXPANDING THE ARMY'S COUNTERTERRORISM CAPABILITIES

The war on terrorism will pose some challenges that the Army's transformation does not fully address. Earlier portions of this briefing suggest that the war will include new classes of targets for which the Army may face some shortfalls or gaps in capabilities. Viewed in terms of responsiveness and combat power, wartime operations are likely to require greater combat power for a given response speed than the Army has traditionally been able to provide.

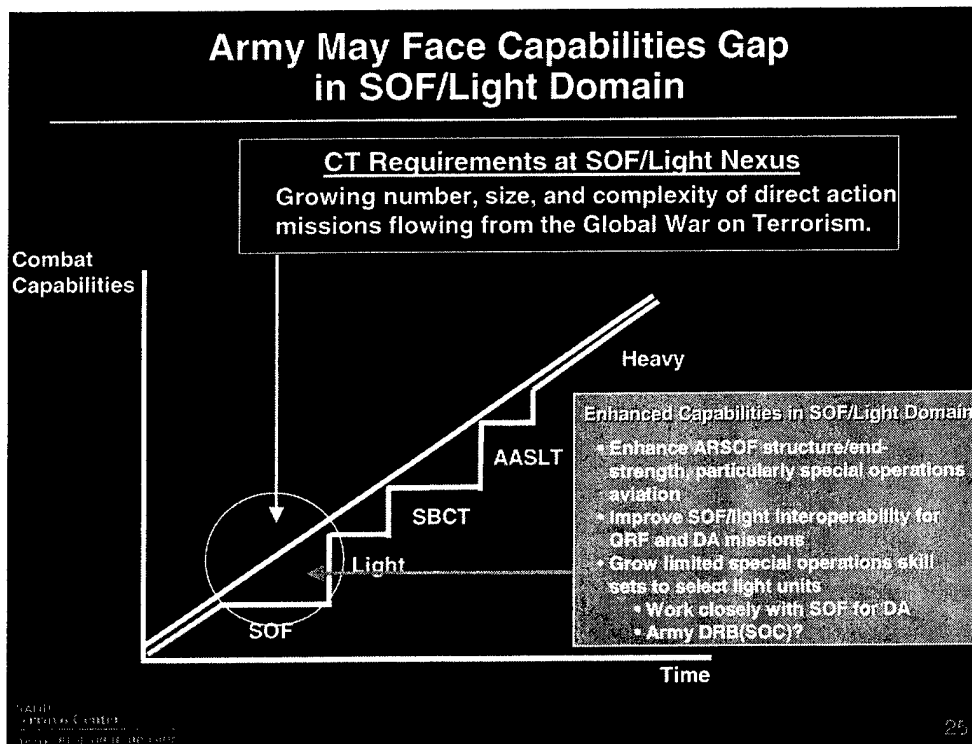
This figure depicts the trade-offs between time to deploy combat forces and combat power delivered—both the relationship that exists today and that needed for counterterror strike operations. The larger horizontal triangle captures the spectrum of traditional operations that the U.S. Army routinely engages in and is well designed for. At the lower end would be current ARSOF direct action and light force strikes and raids. These forces are responsive and have unique capabilities but have limited firepower, force protection, and mobility. At the upper end of the triangle are missions conducted by heavy maneuver combat brigades and divisions. Tremendous combat power resides in these forces, but it comes at the expense of responsiveness. In the middle of the triangle are missions

requiring various mixes of existing Army forces, which generally have the requisite responsiveness. Also shown is the coverage provided by the new wheeled Stryker Brigade Combat Teams (SBCTs) providing combat power and mobility well above those of light forces and with responsiveness much greater than that of heavier maneuver brigades. As the dotted line depicts, the capabilities of these brigades should enable them to cover a broad portion of the operational spectrum.

The emerging challenge for the Army resides in the left-hand triangle, labeled counterterrorism strike operations. This represents the zone that requires both responsiveness and substantial combat power. Viewed in terms of striking this balance, some operations in the war on terror are likely to require greater combat power in shorter response times than can be achieved with existing Army units.

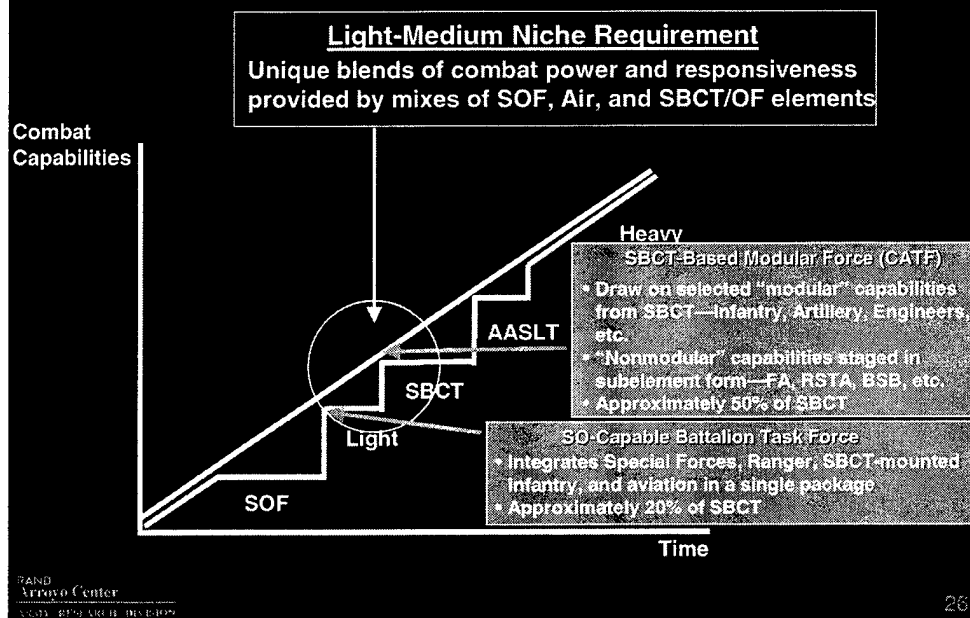
The SBCT will address part of this class of targets, but the project team's analysis suggests that the full SBCT takes too long to deploy to adequately address the bulk of the war's operational requirements. The speed with which an SBCT could deploy by air is a function of many factors, among them specific configuration of the brigade, distance to be covered, number and type of airlift available, and level and speed of throughput at the point of debarkation (itself a function of several factors). At an estimated 15,000 short tons, for most plausible scenarios, moving a full SBCT by air would take at least a week.¹¹ But some very high value, well-protected targets may appear on short notice and be transitory, requiring a considerably shorter response time. Furthermore, for many such targets there would be no need for a full SBCT, especially when factoring in other joint capabilities. On the other hand, SOF and some light units are very deployable and in some cases do bring considerable capability to bear but may lack the types of combat power, mobility, and protection to cope with the hardened, dispersed, and defended targets foreseen by the project team. Thus, a niche requirement exists that the Army must consider how to address.

¹¹For detailed analyses of timelines deploying the SBCT by air and sea under various assumptions, as well as assessments of prepositioning alternatives, see Vick et al. (2002); Gordon and Orletsky (2003).



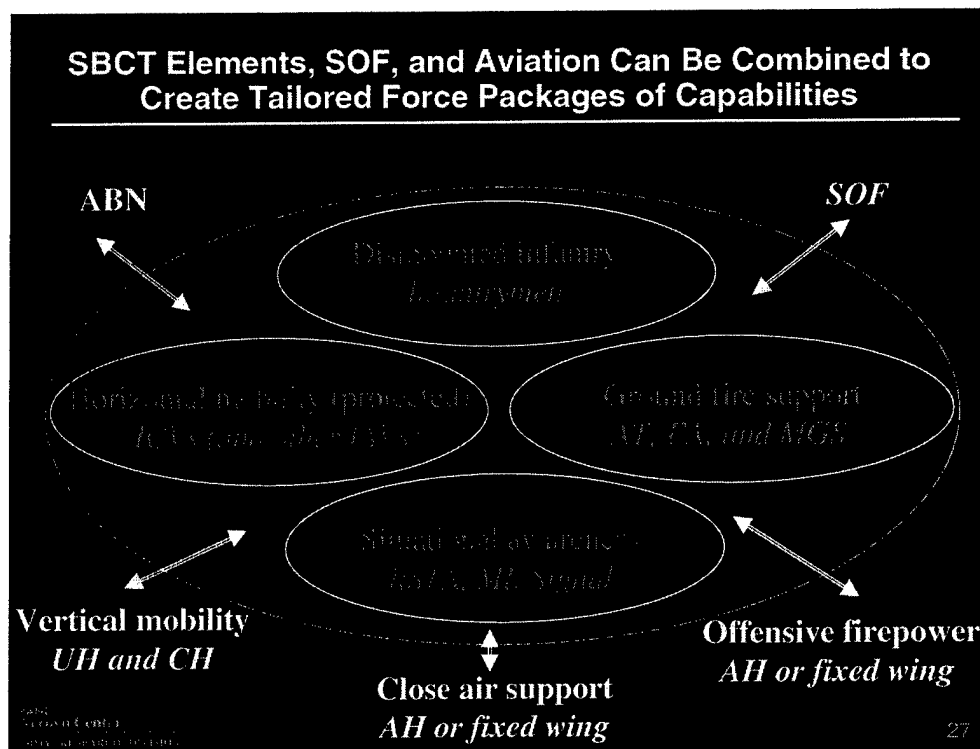
The previously identified niche can be further divided into a high end and a low end. At the low end, the Army could consider addressing the requirement by enhancing ARSOF force structure or end-strength, improving interoperability between SOF and light forces, and perhaps creating limited special operations skill sets in specified light units. For example, the Army might consider creating DRB (SOC) arrangements whereby subelements of rotational division ready brigades might receive additional training in select, limited special operations missions, such as direct action or special reconnaissance. This would allow these light force elements to work more closely with ARSOF elements during overseas counterterrorism operations. ARSOF elements routinely work with light forces rotating through the Joint Readiness Training Center at Fort Polk, LA, which helps build a basis for interoperability. The success of this training strategy has been demonstrated in Afghanistan. However, much more can and should be done because future missions are likely to involve the increasingly close cooperation between these two elements of the force.

Some CT Missions Will Require Modified Light-Medium Force Packages



This figure addresses the higher end of the requirement for the war on terrorism, the light-medium niche. A number of capabilities being developed through the Army's transformation could be fielded sooner to help the Army meet the new requirement. In addition to accelerating the fielding of selected technologies, the Army might also consider adapting the SBCT itself. To illustrate how this might be done, the project team devised an illustrative SBCT-based combined arms task force (CATF). The CATF draws one module from each modular SBCT organization (e.g., the set of three infantry battalions) and from the total organization for nonmodular elements (e.g., the signal company). With this design, the CATF would draw approximately half of the SBCT's personnel and equipment. If preplanned subelements of nonmodular organizations (e.g., the signal company) were developed through detailed analysis, and experimentation, the size could likely be reduced without decreasing capabilities.

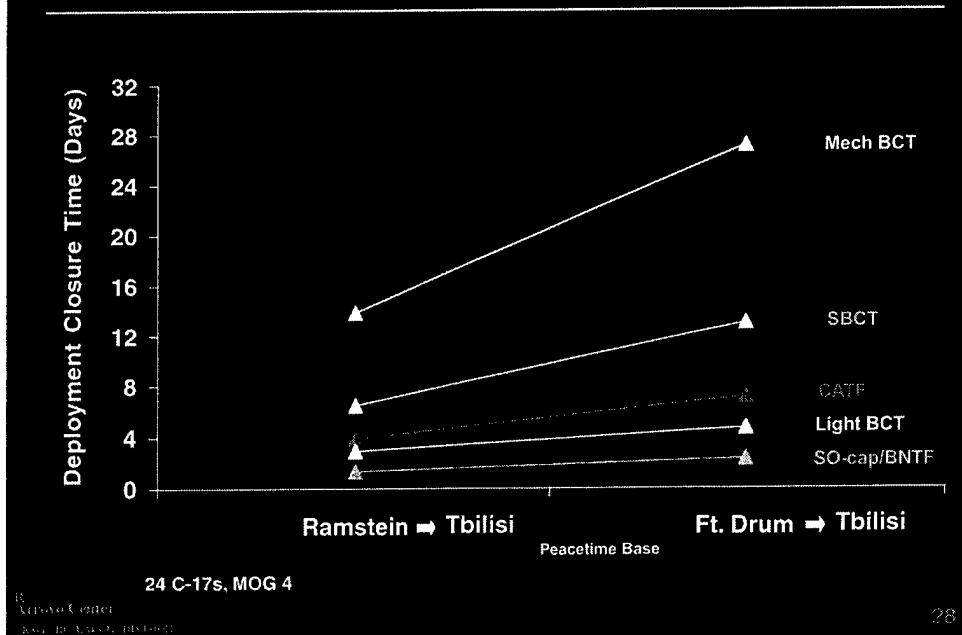
The project team also developed a notional special operations-capable composite battalion that integrates an SBCT infantry company, a mounted reconnaissance troop, Special Forces teams, Rangers, aviation, and a composite support company into a single unit. The notional unit draws about 20 percent of an SBCT's personnel and equipment.



This figure illustrates another way in which the SBCT and other units could provide the capabilities required for the war on terrorism. In addition to C2, the SBCT might be viewed as consisting of four capabilities that with planning could be provided independently. One of the basic elements of the SBCT is its infantry. Given the right training, these infantry troops can be capable of any light infantry missions. For situations that call for a mobile force, long-range patrolling, or “protected” movement, the Strykers provide the infantry with requisite mobility and limited protection (as Strykers provide to other SBCT elements). Given the appropriate training (“light” infantry training without dependence on vehicles and mounted operations/dismounted operations supported by Stryker infantry carrier vehicles) the infantry battalions can then be thought of as providing two separable capabilities: dismounted infantry and protected mobility. The mobile gun system (MGS) platoons, antitank company, the heavy mortar sections, and the field artillery battalion provide both offensive and defensive ground fire support/firepower capabilities for more difficult targets, quick response to intelligence, and increased force protection. Finally, the reconnaissance, Surveillance, and target acquisition (RSTA), military intelligence (MI), and signal assets provide a unique self-contained “situational awareness” package. Combined with SOF, air mobile units, close air support, offensive air firepower, airborne, or other identified capabilities, as necessary, these four SBCT capabilities can be used to create a full menu of rapidly configurable force

package options for potential missions in the war on terrorism. To be successful, such an approach must employ preplanned time-phased force and deployment data (TPFDD) on building blocks of capabilities—e.g., an infantry battalion would be represented by unit type codes (UTCs) similar to Air Force packages designated by UTC.

Modified Units Could Achieve High Responsiveness



This figure shows how the notional units fare in terms of strategic responsiveness. All deployments are by air (C-17) and based on a Maximum on Ground (MOG) of 4.¹² Two movements are depicted, one from an overseas base (Ramstein AB, Germany) and one from CONUS (Fort Drum), with destination Tbilisi, Georgia.

Note that the CATF described earlier is substantially more responsive than a full SBCT. When deployed from Ramstein, its timelines are comparable to those of a light BCT deployed from a CONUS base. The smaller special operations-capable battalion task force is extremely responsive, with deployment timelines in the 36–48 hour timeframe.

One of the major challenges to creating these types of units in the real world is that they would have to be standing at a high state of readiness, comparable to that of the DRBs. They would have to train together on a regular basis, including being part of a larger joint force. Given the responsiveness required and the demanding missions expected of the units, the Army could not rely on pulling together a task force in real time (although the standing units could be augmented/tailored on short notice to meet mission specific needs). Such

¹²Working MOG is a function of several factors, among them airfield ramp space, fuel and other aircraft servicing capability, and offload capacity. For estimates of the impact of alternative MOG assumptions on SBCT deployment timelines see Vick et al., 2002, pp. 20–28.

standing, high-readiness units would also contribute to the rotation burden discussed earlier.

Concluding Observations

- Repetitive deployments are back and will remain—manage people accordingly
- More than ever the Army needs a range of force capabilities—SOF to MCO
- Leveraging the Transformation for war on terrorism means more capable yet mobile light forces that can be easily tailored and SOF-conventional hybrids
- Address problem of scarce LD/HD assets to meet competing demands of homeland security and the war on terrorism
- Army has a large stake in any global basing not only for combat forces but also support

Small text in the bottom left corner of the slide, likely a footer or page number.

29

CONCLUSIONS

To summarize, the study has five major findings. First, repetitive deployments will continue as a result of the war on terrorism, and the Army should consider how to manage its people accordingly. Second, more than ever, the Army needs a range of force capabilities—from SOF to MCO. Third, leveraging the transformation for the war means more capable yet mobile light forces that can be readily tailored, as well as exploring modified capabilities of light-medium forces, drawing on innovations from the ongoing transformation. Fourth, if the Army adds force structure, it should focus on scarce LD/HD assets rather than TO&E units to satisfy competing demands of homeland security and the war on terrorism. Last, the Army has a large stake in any global basing not only for combat forces, but also for support.

Perhaps the biggest overall challenge for the Army is to provide the capabilities the nation demands for the war on terrorism while continuing to meet its many other responsibilities. Balancing these efforts and the risks entailed will be a central feature of Army decisionmaking in the years ahead. Drawing on its existing and transforming force structure, the Army can avail itself now of opportunities to meet that challenge.

BIBLIOGRAPHY

Bush, President George W., remarks by the President in an Address to the Nation, June 6, 2002.

Davis, Lynn, and Jeremy Shapiro, eds., *The U.S. Army and the New National Security Strategy*, Santa Monica, Calif.: RAND, 2003.

Department of Defense (DoD), *Quadrennial Defense Review Report*, Washington, D.C., September 30, 2001.

_____, "General Keane Press Briefing on Plans to Rotate Forces in Iraq," July 23, 2003, available at <http://www.defenselink.mil/transcripts/2003/tr20030723-0444.html>

Gordon, John, and David T. Orletsky, "Moving Rapidly to the Fight," in Lynn Davis and Jeremy Shapiro, eds., *The U.S. Army and the New National Security Strategy*, Santa Monica, Calif.: RAND, 2003.

Hosek, Susan, "Taking Care of People," in Lynn Davis and Jeremy Shapiro, eds., *The U.S. Army and the New National Security Strategy*, Santa Monica, Calif.: RAND, 2003.

Office of the President, *The National Security Strategy of the United States of America*, Washington, D.C., September 2002a.

_____, *The National Strategy to Combat Weapons of Mass Destruction*, Washington, D.C., December 2002b.

_____, *The National Strategy For Combating Terrorism*, Washington, D.C., February 2003.

Orvis, Bruce R., *Deployability in Peacetime*, Santa Monica, Calif.: RAND, DB-351-A, 2002.

Pelz, Eric, and John Halliday, "Making the Power Projection Army a Reality," in Lynn Davis and Jeremy Shapiro, eds., *The U.S. Army and the New National Security Strategy*, Santa Monica, Calif.: RAND, 2003.

Polich, J. Michael, Bruce R. Orvis, and W. Michael Hix, "Small Deployments, Big Problems," Santa Monica, Calif.: RAND, IP-197, 2000.

Quinlivan, James T., "Force Requirements in Stability Operations," *Parameters: U.S. Army War College Quarterly*, Vol. 25, No. 4, Winter 1995–1996, pp. 59–

69. Available at <http://carlisle-www.army.mil/usawc/Parameters/1995/quinliv.htm>.

Rumsfeld, Donald H., Secretary of Defense, *Annual Report to the President and the Congress*, 2002a.

_____, "Testimony Before the Senate Armed Services Committee on Progress in Afghanistan," prepared statement, July 31, 2002b.

Sortor, Ronald E., and J. Michael Polich, *Deployments and Army Personnel Tempo*, Santa Monica, Calif.: RAND, MR-1417-A, 2001.

Stattler, Maj. Gen. John F., USMC, Commander, Combined Joint Task Force—Horn of Africa, "Joint Task Force Horn of Africa Briefing," January 10, 2003, DefenseLINK News Transcript.

Tenet, George J., Director of Central Intelligence, "Worldwide Threat—Converging Dangers in a Post 9/11 World," testimony before the Senate Armed Services Committee, prepared statement, March 19, 2002.

Thaler, David E., *Strategies to Tasks: A Framework for Linking Means and Ends*, Santa Monica, Calif.: RAND, MR-300-AF, 1993.

Vick, Alan, et al., *The Stryker Brigade Combat Team: Rethinking Strategic Responsiveness and Assessing Deployment Options*, Santa Monica, Calif.: RAND, MR-1606-AF, 2002.